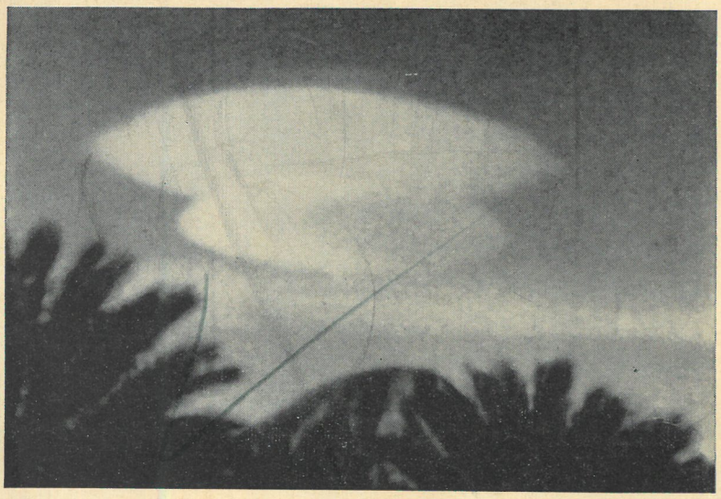
June 9 1952

LIFE'S REPORTS



PICTURE OF "SAUCERS" was submitted to LIFE by reader of April 7 article. But geophysicist has established it as a special type of cloud formation.

SAUCER REACTIONS

They range from plausible theories to nonsense

by ROBERT E. GINNA JR.

The April 7, 1952 issue of LIFE, in which Bradford Darrach and I examined "the case for flying saucers," provoked a tremendous barrage of letters. Some have been nonsensical, some philosophical, some have contained provocative and plausible theories. Not only has the story prompted an unprecedented response from the readers, but more and more letters are still coming in.

Many readers are apparently resigned to visitations from space already and expect a landing momentarily. "We should start construction of a suitable landing field for them," declared one reader. Others believe flying saucers to be far more than a study for scientists. "God is trying to tell the world something," says one reader. Another adds darkly, "He has sent the final sign. . . ."

From the chief of the U.S. Air Force's saucer-investigating project the article brought a note of appreciation for helping their investigations. "A considerable number of observers have written to us with valuable information," he wrote, "because they were encouraged by the LIFE article." And the further reports that have since come in will continue to help the project. One in particular concerns the celebrated "Lubbock Lights," which LIFE reported as having been seen racing frequently over Lubbock, Texas. The professors who saw them assumed the altitude was 50,000 feet, noted their rate of change was 30° of arc per second, and accordingly estimated the lights' speed at 18,000 mph. Now Dr. R. S. Underwood, of the Department of Mathematics at Texas Technological College, has written LIFE that he was able to triangulate them on a September night last year and concluded that their altitude was about 2,100 feet. This means that the lights' speed was about 750 mph—a piece of information that may bring the Air Force one more solid piece of evidence.

Another contribution was in the form of a series of photographs which Robert Retzinger took near Palm Springs, Calif. last March. Dr. Ronald Ives, distinguished geophysicist of Cornell Aeronautical Laboratory, studied the pictures and concluded that they showed the generation of a *Cumulus lenticularis*, or lens-shaped cloud. This type of cloud, common in the area, is formed when compressed and heated air pushes up moist air so that it condenses into lens-shaped clouds. The clouds are often sheared into sections by higher winds, as can be seen in the picture at the top of the page. It is easy to see how a cloud like this, reflecting the lights below, might be taken for a flying saucer.

There was, of course, a minority of readers who dissented from the conclusions in the article. Some still argued that the saucers were super-secret U.S. weapons; LIFE's article had dismissed this argument on the ground that the government would hardly allow one branch of the service to spend vast sums of money on a saucer investigation which would have the primary effect of fooling another government branch even more completely than the enemy. Others maintained that the evidence was not precise enough, although the article had pointed out

CONTINUED ON PAGE 23

LIFE'S REPORTS CONTINUED

flying saucers have been most frequent. He makes clear that he has not seen a flying saucer himself, but he is convinced that reflections or refractions of even the most remarkable nature will not satisfactorily account for many of the sightings.

Dr. Ives points out that the reflectivity of temperature disparities in the air is so slight (much less than 1%) that it reduces the intensity of the light source to a negligible degree—far less bright than the brilliantly luminous objects that have so frequently been seen. Mr. Bryan and a few other dissenters have speculated that these inversion layers may ripple along like the surface of a lake, catching the light from some source like a headlight and making the image appear to race across the sky. But Dr. Ives notes that this would require ideal circumstances. First, assuming that the reflectivity of the layer were great (and it is known to be small) and that a concave reflector effect could be achieved by an exact curving of the layer, the "saucer" would not race by the viewer; it would give an instantaneous flash, and then disappear as soon as the observer or light source moved. The intensely bright light and regular maneuverings of some saucers sighted cannot very well be explained by refraction either.

Strange reflections or refraction mirages have undoubtedly been responsible for a certain number of flying saucer tales, but it is inconceivable that they could satisfactorily explain the 10 sightings that LIFE reported in detail, or most of the still unsolved sightings in the Air Force's bulging files.

●

The number of reports of new flying saucers did not increase after the LIFE article, but it has not diminished either. Newspapers have since carried the news that unidentified, cigar-shaped objects have been winging over Australia. A similar report came from Arizona. The Air Force has noted other saucer accounts from as far away as Malaya.

Meanwhile the Air Force is continuing its investigation and, in fact, is enlarging it—a considerable change of heart from 2½ years ago when the Air Force announced the project was closed and implied that flying saucers were nonsense. The extent of renewed interest is indicated by the fact that Secretary Finletter had his first briefing on the subject by the project officers only a few weeks ago. To aid in the undertaking LIFE is making its widespread news services available to Air Force Intelligence for the gathering of pertinent data.

CONTINUED ON PAGE 26

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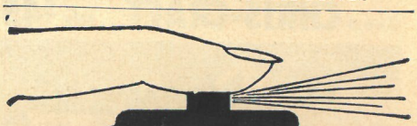

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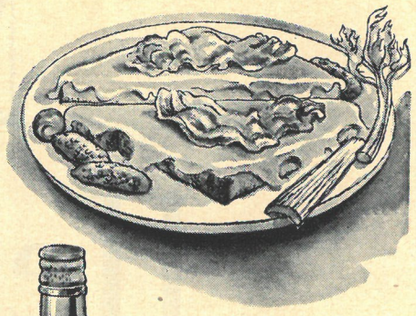
LIFE'S REPORTS CONTINUED

The most interesting of the new reports are accounts of sightings prior to 1947, when the saucer epidemic started. Edwin M. Hudson, an experienced navigator who was in the Merchant Marine during World War II, has offered a detailed description of a remarkable fireball which he observed over Port Elizabeth, South Africa, in July 1943. His description agrees in nearly every respect with the bizarre green fireballs seen in the American Southwest five years later. Assuming that these are not the common variety of noisy, blue-green meteors, it gives pause to those who say that they are American or Soviet weapons. It seems incredible that our technology or Russia's could have produced them by 1943.

LIFE readers can aid the search for the answer to the mystery by reporting the sighting of any strange aerial objects to the nearest Air Force representatives. If you possibly can, photograph any such object you see. At least try to note down all the details you can—color, shape, brightness, kind of motion and direction. If you have time, hold a coin out in front of you until it just hides the object. Measure the distance from the coin to your eye. Try to judge the elevation of the object by moving the coin up to it from the horizon and counting how many coin widths it takes. Note the object's relationship to clouds, and what the clouds look like, and whether the object passes between or in front of any landmarks of a known distance. Try to time how long it takes for the object to pass from one point to another on the horizon. From such notes the Air Force experts may be able to make rough but useful determinations of the size, distance and speed of the object, all of which will help in their effort to find an eventual explanation.

COIN TEST will help make more exact sighting. If you hold coin out until it hides flying object, the width of the coin and its distance to the eye will help experts in calculations.

Make it Snappy!



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Blips on the Scopes

Air traffic was light at Washington Airport one midnight last week, and the radar scope of the Civil Aeronautics Authority was almost clear. At 12:40 a.m. a group of bright blips showed. The operator estimated that they were about 15 miles southwest of Washington. Then the blips disappeared abruptly and reappeared a few seconds later over northeast Washington. The operator called his boss, Senior Controller Harry Barnes, 39, a graduate of the Buffalo Technical Institute who has worked for the CAA as an electronics expert since 1941. The operator told Barnes: "Here are some flying saucers for you."

Barnes laughed at first, but the blips kept popping up all over the scope. They sometimes hovered, sometimes flew slowly and sometimes incredibly fast. Technicians checked the radar; it was in good working order.

Over the White House. Barnes began to get worried when he saw the blips apparently flying over the White House and other prohibited areas. He called the airport control tower. Sure enough, its radar showed the strange blips too. When the towermen measured the speed of a fast blip, they found that it had flown for eight miles at 7,200 m.p.h.

Now the blips on Barnes's scope were moving toward Andrews Air Force Base about ten miles to the east. Barnes called the Andrews tower. Nothing strange showed on its radar, but both towermen and an enlisted man on the field saw a single, round, orange light drifting in the southern sky. That was enough for Barnes. He called the Air Defense Command and reported an unidentified object was over the Washington area. Then he

Robert Phillips

RADARMAN BARNES
In Washington, a terrific Saturday night.

Time 7/4/52

told an airline pilot, C. S. Pierman of Capital Airlines, who was about to take off for Pittsburgh, to watch for mysterious objects. Pierman climbed to 6,000 ft. and headed northwest. Barnes & Co. saw a group of strange blips cluster around the blip made by Pierman's plane, and Pierman spotted a white light "like a falling star." It sped away, and its blip disappeared from Barnes's scope.

Air Force to the Rescue. Over from a Delaware base came a flight of radar-equipped F-94 jet fighters. Before they reached Washington, all the blips vanished. The jets saw nothing at all. But when the jets departed the blips reappeared, playing all over the scope, Barnes said, "like a bunch of kids." He called all airliners flying near Washington, asked their pilots to report any strange objects. One pilot saw a white light, moving fast. But during all this uproar, other radars near Washington (*e.g.*, Quantico and Fort Meade) saw nothing unusual.

All the rest of the week, a few strange blips appeared now & then. Then on Saturday night they broke out all over, criss-crossing the capital as they had the week before. This time, the radar at Andrews was seeing the things too. One blip hung over Bolling Field, across the Potomac from the airport, but observers at Bolling saw nothing in the sky. Some airline pilots saw mysterious lights; others saw nothing.

The Saucer Flies Again. Down from Delaware roared another flight of night fighters. This time the blips did not vanish. They stayed on the ground scopes while the jets screamed among them. But only one pilot saw a light; another saw a doubtful blip on his scope. It vanished before he could shoot.

What were the mysterious blips? The Air Force, unless it was trying to conceal some mysterious gadget of its own (*e.g.*, a radar countermeasure), was as baffled as everyone else. As might be expected, the phantom invasion touched off a whole new rash of flying-saucer stories. But if the men from Mars were really overhead, the oddest part of the whole strange story was the fact that among all the conflicting reports, no radar outside of a ten-mile radius in Washington reported seeing anything unusual at any time.

Protein Puzzle

One way scientists hope to learn more about the mysteries of the human body is by analyzing the structure of proteins, of which the vital parts of all living creatures are made. The job is complicated by the fact that the typical protein molecule is built up of hundreds or thousands of amino-acid* units which link together in complex ways. They form long chains, they branch, they tangle, they join together in rings. Even to identify the amino acids in a simple protein is a difficult task for the most skillful chemist. To figure how they are arranged in the protein molecule has baffled chemists completely. At last week's Second International Biochemistry Congress in Paris, Dr. Fred Sanger, 33, a Quaker chemist from Britain's Cambridge University, told how he and a group of associates had solved one protein puzzle.

Chemist Sanger worked with crystalline insulin, a comparatively simple protein. First he broke the large molecules by oxidation into two fragments, one containing 21 amino-acid building blocks, the other 30. Then by other methods (*e.g.*, hydrolysis), he broke the two parts down until he had fragments that contained only a few amino acids each. These were compounds familiar to biochemists. Sanger identified them by paper chromatography,† and the first and easiest part of his job was done.

Finding out how the pieces fitted back together was much harder. Sometimes Sanger and his group would find in their analysis some substance that does not appear in the known chemistry of living things. This, they decided, must be a tail-like fragment knocked off some larger fragment. They would shift it around, like a piece in a jigsaw puzzle, until they found a spot where it could be placed to form a familiar compound. Little by little, their picture of the insulin molecule took on detail. At last they were sure they knew where each building block belonged.

Dr. Sanger points out that he has not synthesized insulin; he has only charted its structure. The importance of this work is that other chemists may now chart other proteins, find out whether certain groupings of amino acids in their molecules confer certain vital properties. Eventually, for instance, they may find that a small knot of amino acids makes a protein drug, like insulin, act as it does in the human body. Then perhaps a superior insulin substitute can be synthesized.

* Compounds containing an amino (NH_2) group and a carboxyl (COOH) group.

† An analytical method which separates and identifies similar substances by the rate at which they creep through treated filter paper.

Lt. Ruppelt, saucer hunt officer.

FLYING SAUCER continued

Special camera

Among the first to be tested will be Dr. Menzel's theory that saucers are, in reality, lights bounced upward from the earth's surface. As Dr. Menzel independently suggested, the first defraction-grid cameras will be located in the southwestern U.S., which has had a concentration of saucer sightings. Two hundred cameras will be built and distributed to atomic-plant guards, airbase tower operators and radar men. Pictures will be sped to scientists who will then be able to give the world its first incontrovertible word on flying saucers.

2. Cine-theodolites, the instruments with which the Air Force tracks guided missiles, are also being converted to the hunt for flying saucers. Tracking crews will be able to fix their exact location and movement patterns and then photograph them with cameras built into the theodolites. Equipment and personnel at established guided-missile stations have already been alerted.

Secret Pictures Shot

Theodolites attempted to track saucers on at least three occasions during the spring of 1950 at Holloman Air Force Base, New Mexico. One crew, after completing a guided-missile problem, was closing up shop when it picked up an unexpected object. The crew tracked it but could not fix it because no other instrument was operating. Four weeks later, two tracking crews caught an unexpected image, but checking proved that each had been following a different object. At least eight unknown objects were in the air at that time. Pictures were taken but have not been made public.

3. The Air Force hopes to put radar in the flying saucer hunt on a big scale. Radar sightings have been recorded at key places like Oak Ridge, Tenn., and Goose Bay, Labrador. ATIC can never be certain whether such reports actually stem from a sighted object, weather conditions or equipment malfunctions. By combining existing radar, telescopes and cameras, photographs can be taken of any solid objects spotted in the daytime and of glowing objects at night.

4. Modified Navy sonar sound-detection equipment will be used. The absence of any reported sound is one characteristic of most reports on flying saucers. All known aircraft can be heard even when they are too distant to be seen. This strange pattern led one intelligence officer to suggest, "Someone may have discovered a new type of propulsion."

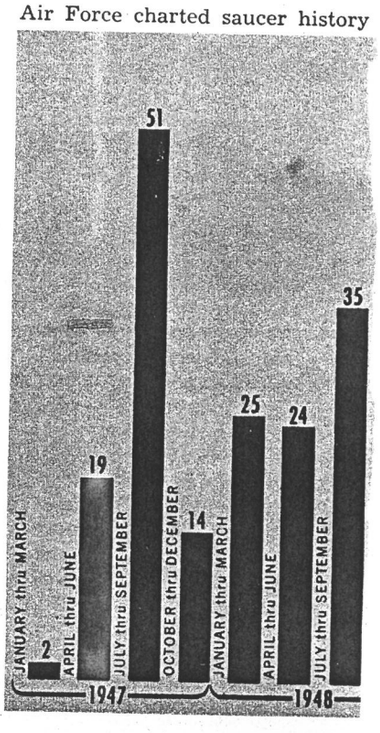
Whatever results are obtained from the electronic and mechanical genius of cameras, theodolites, radar and sonar the Air Force will place before a special board of scientists. This panel will cut across scientific fields and will be established from among 200 scientists and engineers at a Midwestern research institution already doing secret work.

The brand-new search for original scientific data is the climax of five years of official Air Force knowledge of the saucers. Air Force officers were aware of the phenomena well before they sprang into public print. During World War II, mysterious objects were reported seen over German rocket plants. Flying saucers blossomed into a national and international scare in June, 1947, when Kenneth Arnold of Boise, Idaho, reported sighting nine disks while piloting his private plane over Mount Rainier, Washington. But even 15 days before this nation-rousing event, flying saucers (then called silver balls) were seen over certain rural areas of communist-occupied Hungary.

When flying saucers, after Arnold's report, threatened to cause a national panic, the Air Force grew alert. General Vandenberg, chief of air staff, Army Air Forces, became interested and Project Grudge (first known as Project Sign) was organized. This was a special $34,000 hush-hush project under which reports from all over the world were collected and analyzed for two years.

On January 7, 1948, the death of Capt. Thomas F. Mantell, Jr., caused a stir. Captain Mantell was

Air Force charted saucer history



will test Menzel's theory

killed chasing an unknown object in his P-51 near Godman Field, Ky. (A drawing of this incident by Look artist Leonard Jossel is on the cover of this issue.)

In August, 1949, the Air Force decided to close down Project Grudge. It compiled the data on 375 sightings in a report which asserted that flying saucers did not exist and attributed sightings to "misinterpretation of various conventional objects," mass hysteria, war nerves, hoaxes, hypnosis, illusions, vertigo, publicity stunts and psychopathological persons.

The report gave these reasons to all of the 375 sightings but 34.

These 34, the report said, were "good reports that could not be explained." They still baffle Intelligence today. But the 1949 report put Project Grudge on the shelf.

Some of the scientists consulted did not agree with the Air Force decision. Their recommendation, stated in the report, was that the search be continued. Two scientists felt that no conclusions could be drawn from the evidence.

Then, last October, two intelligence men in the Unconventional Aircraft Group, Aircraft and Propulsion Section, Technical Analysis Division of the Air Technical Intelligence Command, discovered that they had nearly 800 reports gathered in their files—more than twice the number on hand when the 1949 report was written. Interest and activity spurted forward and have now reached the highest levels of the Pentagon.

Project Grudge was revised (its name was changed to Project Blue Book on March 25 of this year) and in charge was placed 1st Lt. Edward J. Ruppelt of Ames, Iowa, a World War II B-29 bombardier with two Distinguished Flying Crosses, 33 combat missions and a degree in aeronautical engineering from Iowa State College.

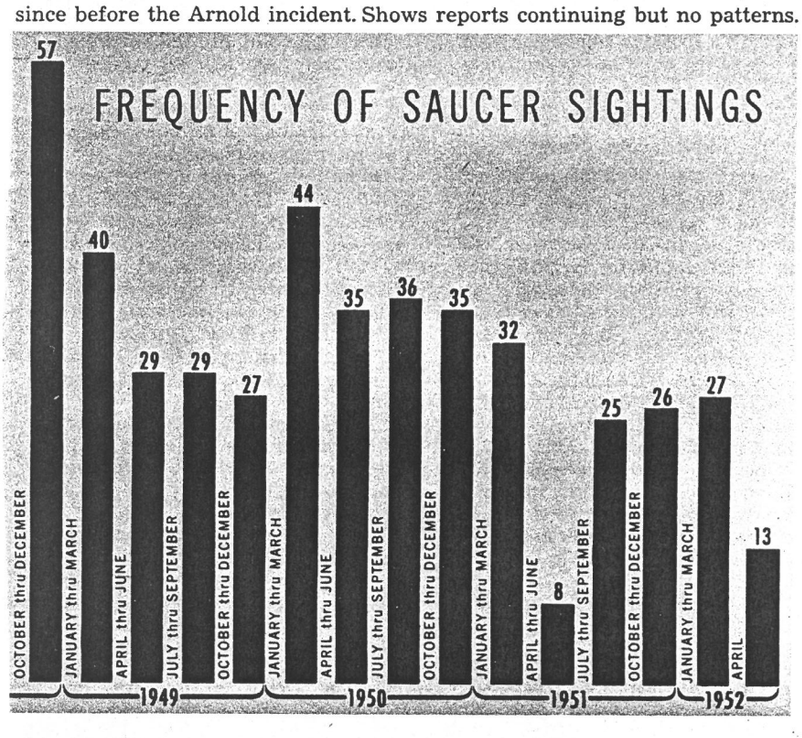
Project personnel immediately set about studying their 800 sightings. They found that the reports have come from scientists, airline pilots, plain civilians, Air Force fliers, balloon observers and radar operators. Most have come from the United States but others from Russia, Africa, Japan, India, Australia and even Antarctica.

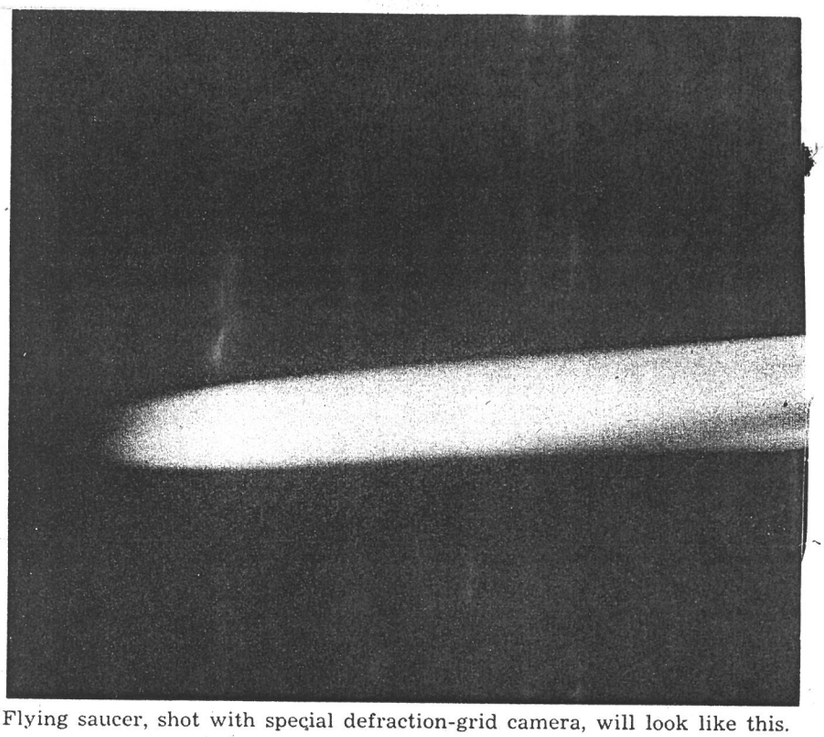
One intelligence colonel put ATIC's feelings bluntly, "These reports came from sincere people. They are not crazy; they are not crackpots. They are seeing something; we have to find out what."

Analysis of the 800 sightings aims at discovering clues about the saucers. The reports have been broken down on 16,000 cross-filed cards and have already been analyzed for frequency of sightings, types of informants and reported shapes. The Air Force now knows, for example, that 18.03 per cent of the reports came from general military personnel, 11.02 per cent from Air Force pilots while aloft. Surprisingly, untrained civilians have been responsible for only 57.08 per

CONTINUED

since before the Arnold incident. Shows reports continuing but no patterns.





Flying saucer, shot with special defraction-grid camera, will look like this.

FLYING SAUCER continued

Mirage, missile, Martian?

cent of the reports over five years.

The Air Force has also learned that 23.54 per cent of the reports noted disk or sphere shapes, 8.25 per cent cigar or rocket shapes, 2.55 per cent flying wings and 0.6 per cent groups of lights.

They also found that 38 per cent could be classified as astronomical bodies, 13 per cent as balloons, 10 per cent as too nebulous to be valuable, 22 per cent as birds and aircraft, etc., 2 per cent as hoaxes and 15 per cent as "unexplained." The unexplained 15 per cent puzzle the Air Force.

ATIC officials permitted me to go through hundreds of these reports. Most of them are rather simple to figure out or are too incomplete to be useful. But the reports called "good, unexplainable" completely stump Air Force Intelligence. Lieutenant Ruppelt says, "We just don't have the facts to know. We don't know enough to sluff them off and we can't reach conclusions. We have to find out."

Ideas Seem Crazy

Useful reports continue to arrive at the rate of 10 per month; all saucer reports received at ATIC total three times that number. The Air Force continues to urge anyone who wants to report an unknown object in the skies to reach the intelligence officer or operations officer at the nearest Air Force base. Such reports are teletyped immediately to Washington and Dayton. All informants' names are kept confidential.

One high intelligence officer explained, "We want all the information we can get all the time. We will consider the seemingly craziest ideas. Someone may spot something important."

To this General Vandenberg added, "The Air Force greatly appreciates the effort of many sincere and public-spirited individuals who have offered their assistance."

Lieutenant Ruppelt keeps 63 sightings on the top of his file. These are the most detailed and most mystifying. They come from pilots, ship observers, an Air Force colonel, civilian scientists, weather observers and intelligence officers. None of these 63 can be identified with any certainty. If the Air Force tosses them off with some easy guess, there is always the fearful chance that they will be missing a dangerous bet.

These sightings were pinpointed on a map. Soon afterwards, it was seen by a Pentagon representative who noted that a number of concentrations duplicated exactly the area of atomic energy installations. The Pentagon man excitedly reported back to his headquarters. A conference was called immediately in Washington.

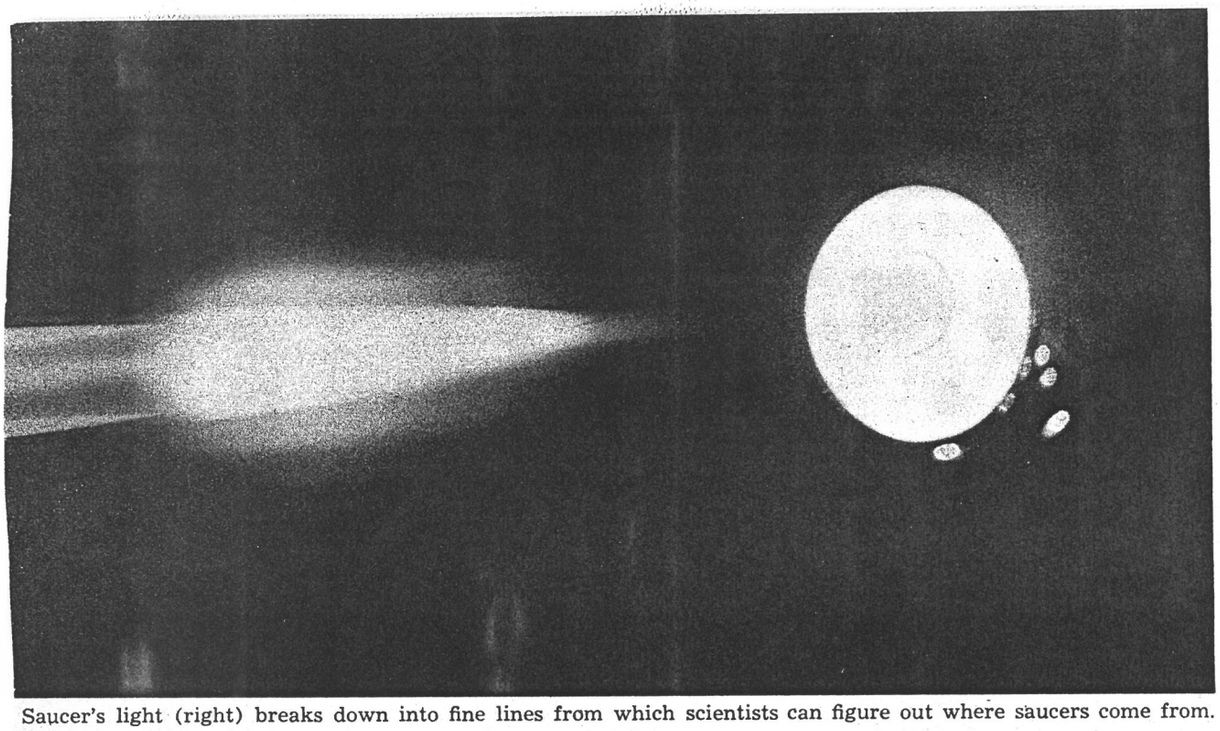
Do Saucers Spy?

Intelligence had to tell the Pentagon that they had no evidence that the flying saucers are spying on or threatening our atomic program. But this fear still lies deeply in some responsible minds.

One intelligence officer, thinking aloud, said, "This may be Russian reconnaissance but why would they want to risk a weapon like this just to look at Atomic Energy Commission plants. If we could fly 5,000 feet over Russian atomic installations and observe the shapes, sizes and locations of their buildings, we could tell what's going on inside.

"The joker is that just about all of this information has been made public about our atomic work. The Russians don't have to fly over our A-bomb plants."

In their search for an answer, intelligence men have tried, without success, to correlate the unexplained sightings with publicity about flying saucers, increased war tension, tides, or atomic bomb detonations. None of them fits. They offer no pattern, no explanation that satisfies the experts. And long



Saucer's light (right) breaks down into fine lines from which scientists can figure out where saucers come from.

—Intelligence officers don't know

ago, the Air Force gave up the easy idea that all the excitement is just the result of mass hysteria.

Arrangements have now been made for ATIC headquarters to receive immediate word of every new sighting. If early reports, replying to a carefully designed questionnaire, suggest that a trained investigator might gain more facts from first-hand checking, an intelligence officer is sent to the scene. In recent weeks, trips have been made to Minneapolis, New Jersey, Columbus, Chicago, Detroit, Long Island and Texas.

Especially puzzling have been the horizontal-flying "green fireballs" which have been reported at Roswell, N. M.; Falls Church, Va.; Cedar Keys, Fla., and Albuquerque, N. M. Another branch of the Air Force, the Air Research and Development Command, with headquarters in Baltimore and laboratories in Boston, has been studying them in a secret project called Project Twinkle. Although work on this project has been completed, the ARDC refuses to make public its findings. All a spokesman for the ARDC will say is, "We have nothing that proves the existence of flying saucers." But something called "green fire-balls" does exist, many Intelligence officers insist.

Stuck with Mystery

Some Air Force officials feel the inconclusive Project Twinkle report will never be made public; they won't explain why. Some suggest it would expose a foul-up.

The Air Force refuses to jump at any conclusions on saucers. As the colonel in command of the ATIC put it recently, "Sometimes this project sounds like it belongs to the Air Defense Command, sometimes like the National Inventors Council. But we get stuck with the mysteries."

Air Force officers feel the final solution to the flying saucer mystery will be found under one or more of the following headings:

1. Flying saucers can turn out to be misinterpretations of known objects. These have already caused many reports. People sighted balloons, jet planes and such and excitedly called them saucers.

But such misinterpretations cannot explain many of these sightings. Even the most cautious Air Force authorities feel certain that many people are not describing the behavior of any conventional form of aircraft, not even an aircraft on the most experimental drawing boards. No aircraft known, they point out, travels at such high speeds, gives off no noise, and maneuvers with the high acceleration and sharp, even square, turns that have been reported.

Trick of Nature?

2. The mystery may prove to be caused by phenomena of nature or optics. Most promising is the theory proposed by Dr. Menzel that saucers are aerial mirages created by light reflections. Other natural possibilities are: electrical discharges in the upper atmosphere; unusual meteorites, or a new position of the earth in the universe, causing phenomena which mankind has never before experienced and therefore cannot identify.

Lieutenant Ruppelt says, "We expect Dr. Menzel's theory to solve some of these cases. We hope it will solve all of them.

"If the saucers turn out to be natural phenomena, we will drop out and hand the problem over to the scientists. But if they turn out to be 'hostile vehicles,' we will keep after them."

3. Saucers could prove to be man-made. They may turn out to be a foreign development, most possibly Russian, although no one will rule out scientifically advanced nations like Sweden, Switzerland, England, France or Italy. Lt. Ruppelt adds, "If these are man-made, whoever is making them is way ahead of us technologically."

Or, although this is constantly and emphatically denied, they may be part of a secret U. S. development project. Intelligence officers admit that if a project were secret enough they would deny even its existence. But an informed intelligence officer said recently, "I'm quite sure there is no secret project. There is more chance that they are from Mars than from a project of ours. But we don't know. This could all be an elaborate cover-up for something no one wants explained, but I doubt it."

Could Be Spaceships

4. Flying saucers could be interplanetary spaceships or missiles. Air Force intelligence men say they are continually astounded by the number of trained scientists who believe they are interplanetary in origin. Lieutenant Ruppelt says he has talked with hundreds of scientists and heard many such theories.

He adds, "We can deal with these things if they are from Russia. If they are from Mars, I don't know what we will do. We have no proof that they could not come from outer space and must include this among our possibilities."

Air Force Intelligence says, whatever the flying saucer is—mirage, misidentified aircraft, freak of nature, enemy weapon or spaceship—the Air Force cannot move to counteract it until it has determined accurately what people are seeing. This is the hunt being mounted now.

Lieutenant Ruppelt sums up, "The only conclusion we have come to so far is that 'flying saucers' are not an immediate and direct threat to the U. S. They have been around for five years and haven't struck yet. But that doesn't mean they are not a potential threat."

END

Illustrated by Joe Kotula

TRUE—
July 1952

The Pan American airliner was flying at 8,000 feet when its pilot and co-pilot saw the flying saucers, in formation, at 6,000 feet below. After the airplane landed, the Air Force wanted to know all about it

WE FLEW ABOVE FLYING SAUCERS

by 1st Officer William B. Nash and 2nd Officer William H. Fortenberry

How does it feel to see flying saucers? Like most people, we had never consciously expected to face that question, but now we have an answer. When you see "saucers" from the angle and nearness that we did, and watch them go through the astonishing maneuver that we witnessed, you feel humbled.

Sitting in the complex cockpit of a fast four-engined airliner, we had the deflated feeling that we and our modern airplane were so far outclassed by somebody and something else that it wasn't at all funny.

On the night of July 14, 1952, we were ferrying a Pan American World Airways DC-4 from New York to Miami. There was a crew of three—Captain Fred Koepke and ourselves—and ten passengers, company personnel and their families. The night was clear and visibility unlimited. The only clouds, practically invisible to us, were reported to be thin cirrus, three-tenths, at 20,000 feet.

Occupying the pilot and co-pilot seats, we flew at 8,000, cruising on the automatic pilot over Chesapeake Bay, as we approached Norfolk, Virginia, [*Continued on page* 110]

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order the circuits wired off, though National Airlines had belatedly cut off R/P's.

The public hearings on the Elizabeth accidents were concluded—successfully, from the CAA-CAB point of view, for there were no embarrassing revelations. The pilots had reluctantly kept silent about R/P's, perhaps afraid of losing their jobs—more than one line would share the blame if the scandal broke.

There remained only the hurdle of expressing official opinion in the publicly issued investigation reports. The CAB confirmed that the National DC-6 "settled rapidly" because of a reversal of No. 3 prop and feathering of No. 4, but in the case of the AA Convair crash declared that "there is insufficient evidence available at this time upon which to predicate a probable cause."

Meanwhile an ALPA committee official wired Horne, asking for approval of a new Hamilton prop system with a manual lock—a system ready for test. Horne deferred action by inviting the industry to submit comments on the proposal.

Clinging to piecemeal practices the CAA began issuing new propeller Airworthiness Directives, which are instructions to aircraft users for modifications of installation and maintenance. Wholesale propeller-system changes—despite a four-year history of R/P malfunctionings—apparently still are not considered urgent. Presumably it would be an inconvenience, and a financial handicap, for airlines to make modifications immediately, therefore pilots and passengers must continue to take their chances while "progressive programs" are undertaken. Some Airworthiness Directives issued in July of this year specify compliance dates ranging from December 15, 1952, to as late as November 1, 1953. And these are merely modifications—not the positive prop lock sought by the pilots which must still await industry approval and CAA action.

And so the propeller gamble goes on—part of the larger gamble that, in too many forms to describe here, pervades CAA-CAB safety supervision. Two examples may help to illustrate the extent of laxity.

Lives have been lost through failure to compel operators to respect regulations, or to penalize violators sufficiently. In April, a North Continent nonscheduled transport crashed near Los Angeles, killing all twenty-nine on board. The CAA has indicated that pilot exhaustion caused this accident. By regulations, pilots are limited to eight hours a day. These men had been kept on duty eighteen hours. The CAA had known for months that North Continent made this a practice, for six pilot-overtime violations were already on file against this irregular carrier. In addition, it had thirteen for serious overloading, three for unauthorized flights with passengers, and two for flying passengers without proper seats and belts. After twenty-nine people were killed, Administrator Horne grounded the line.

The nonscheduled operator, Miami Airlines, whose overloaded C-54 crashed with a burning engine in the first Elizabeth tragedy of December 16, 1951, killing all fifty-six persons aboard, had a record of sixteen previous violations, fourteen of them for overloading, for which the CAA had accepted a compromise fine of $1,800. To date, the CAA has taken no further action against this carrier.

Some time ago, another irregular, Air Transport Associates, had a fatal night crash in Seattle. Their converted C-46, losing power on a take-off, crashed into a house, killing five people there and two in the plane. Fuel of 91 octane instead of 100 had been used for take-off. No penalties were asked by the CAA.

Another peril, sanctioned by the government, is the failure to install safety equipment because of extra cost and weight. One item is the self-inflating life raft that can be released from aircraft externally. On January 19, 1952, a Northwest DC-4 was forced down off British Columbia. Two months later, a Pan American DC-4 went into the sea near Puerto Rico. Many or all of the eighty-nine people who drowned in these two crashes might have lived had adequate life rafts been available.

On February 20, President Truman, in writing to General Doolittle, expressed his serious concern about airplane accidents and the anxiety and loss of life in cities adjoining airports.

Had he known it, he could have found the answers just across the Ellipse, in the long gray buildings that house the CAA and the CAB.

For many lower officials in those buildings, afraid to speak, could have told him the way to end crashes in cities. The technical steps required were already known to pilots and the airlines. Only one thing was needed to put them into effect:

Men with the courage to place public safety above economic considerations.

Perhaps, someday, such men will take over and finally end the long gamble with death.—**Donald E. Keyhoe**

We Flew Above Flying Saucers

[*Continued from page* 65]

which lay about 20 miles in front of us on our compass course of 200 degrees magnetic—a little west of south. We were due to overhead the V.H.F. radio range station at Norfolk in six minutes and make a position report then. The sun had set an hour before, and though we could still make out the coast line, the night was almost entirely dark. The distant lights of the cities stood out plainly, undimmed by any haze. One of us pointed out to the other the city of Newport News, which lay forward and to our right.

Suddenly a red brilliance appeared in the air beyond and somewhat eastward—that is, to our side—of Newport News. We saw it together at practically the same moment. The remark of one of us

was, "What the hell is that?" It hadn't grown gradually into view—it seemed simply to have appeared, all of a sudden, in place.

Almost immediately we perceived that it consisted of six bright objects streaking toward us at tremendous speed, and obviously well below us. They had the fiery aspect of hot coals, but of much greater glow—perhaps twenty times more brilliant than any of the scattered ground lights over which they passed or the city lights to the right. Their shape was clearly outlined and evidently circular; the edges were well defined, not phosphorescent or fuzzy in the least. The red-orange color was uniform over the upper surface of each craft.

Within the few seconds that it took the six objects to come half the distance

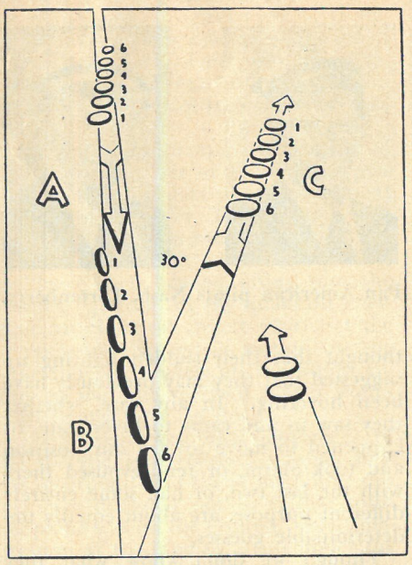

Diagram shows saucers' maneuver in stages. At "A," during approach, six held stepped-up echelon. Flipping on edge at "B," followers overrode leader until, in reverse order at vee point, they flipped flat again and echelon darted in new direction, appearing aligned from observers' point of view. At "C," after brief blink-out, six were joined by two from behind airliner.

from where we had first seen them, we could observe that they were holding a narrow echelon formation—a stepped-up line tilted slightly to our right, with the leader at the lowest point and each following craft slightly higher. At about the halfway point, the leader appeared to attempt a sudden slowing. We received this impression because the second and third wavered slightly and seemed almost to overrun the leader, so that for a brief moment during the remainder of their approach the positions of these three varied. It looked very much as if an element of "human" or "intelligence" error had been introduced, in so far as the following two did not react soon enough when the leader began to slow down and so almost overran him.

We judged the objects' diameter to be a little larger than a DC-3 wingspread would appear to be—about 100 feet—at their altitude which we estimated at slightly more than a mile below us, or about 2,000 feet above ground level.

When the procession was almost directly under and slightly in front of us—the pilot had to rise hurriedly from the left-hand seat and lean to see them—the objects performed a change of direction which was completely amazing.

All together, they flipped on edge, the sides to the left of us going up and the glowing surface facing right. Though the bottom surfaces did not become clearly visible, we had the impression that they were unlighted. The exposed edges, also unlighted, appeared to be about 15 feet thick, and the top surface, at least, seemed flat. In shape and proportion, they were much like coins. While all were in the edgewise position, the last five slid over and past the leader so that the echelon was now tail-foremost, so to speak, the top or last craft now being nearest to our position. Then, without any arc or swerve at all, they all flipped back together to the flat altitude and darted off in a direction that formed a sharp angle with their first course, holding their new formation.

The change of direction was acute and abrupt. The only descriptive comparison we can offer is a ball ricocheting off a wall.

Immediately after these six lined away, two more objects just like them darted out from behind and under our airplane at the same altitude as the others. The two newcomers seemed to be joining the first group on a closing heading.

Then suddenly the lights of all of the objects blinked out, and a moment later blinked on again with all eight in line speeding westward, north of Newport News, and climbing in a far, graceful arc that carried them above our altitude. There they disappeared, while still in view, by blinking out one by one —not in sequence, but in a scattered manner.

There had seemed to be some connection between the lights and the speed. The original six had dimmed slightly before their angular turn and had brightened considerably after making it. Also the two others were even brighter, as though applying power to catch up.

We stared after them, dumbfounded and probably open-mouthed. We looked around at the sky, half expecting something else to appear, though nothing did. There *were* flying saucers, and we had seen them. What we had witnessed was so stunning and incredible that we could readily believe that if either of us had seen it alone, he would have hesitated to report it. But here we were, face to face. We couldn't both be mistaken about such a striking spectacle.

The time was 8:12 Eastern Standard Time. The whole thing had occurred very quickly; we agreed on an estimate of 12 seconds. Now for the question, not too hopeful: had anybody else aboard seen it?

The co-pilot went through the small forward passenger compartment, where the captain was intent on paper work. In the main cabin, some of the passengers were dozing. A cautious inquiry whether

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anyone had happened to see anything unusual brought no results.

Back in the cockpit, we discussed and formulated a quick report. We called the Norfolk radio as we passed over it, gave our position according to routine, and upon receiving confirmation of that message added a second which we requested be forwarded to the military: "Two pilots of this flight observed eight unidentified objects vicinity Langley Field; estimate speed in excess of 1,000 m.p.h.; altitude estimated 2,000 feet." The captain came forward and was told of the incident and the message; he took over while we went to work figuring and writing notes on what we had seen.

With a Dalton Mark 7 computer, a kind of pivoting calculator, we swung the azimuth from the longitudinal axis of the airplane to the saucers' angle of approach toward the nose, as well as we could remember it, then did the same for their angle of departure. We found that the difference was only about 30 degrees; therefore they had made a 150-degree change of course almost instantaneously. The G force produced in such a turn we couldn't begin to figure, of course, even if we had known how, for it would depend on duration and speed—and there was where we really ran into something.

By reference to the chart, we estimated that the saucers' track, from the locality where we had first seen them to the place where they had disappeared, covered about 50 miles, and they had traveled it in 12 seconds. If we were conservative and allowed 15 seconds, that would mean that the objects were flying at the rate of 200 miles in each minute, or 12,000 miles per hour! If we were to be even more conservative and cut our distance estimate right in half, the speed would still be around 6,000 miles per hour!

Awhile later, while we were still discussing the matter, the lights of a northbound four-engined airliner came into view on a course about 1,000 feet above us. If any normal happening could have increased the effect of our night's experience on us, it was that commonplace event. Ordinarily the head-on approach of two airliners—their closing speed would be 500-550 m.p.h.—seems pretty brisk. This night the oncoming plane seemed to be standing still, after the streaking speed of the saucers.

We landed at Miami International Airport shortly after midnight. On entering the operations office, we found filed, from our New York dispatcher, a copy of the saucer message we had transmitted through Norfolk, with an addition: "Advise crew five jets were in area at the time." That didn't exactly apply; the things we had seen were eight in number, and we were dead sure they were no jets. Then we phoned the officer on duty at the Air Force headquarters on the airport and told him we had a report to make concerning some strange unidentified objects. He took our names and addresses and said we would be contacted by the proper authorities.

We were. At 7 a. m. we were telephoned by Air Force investigators and appointments were set for an interview later that morning. For a considerable time both of us were earnestly and diligently interrogated, separately and together. We were surprised by being told at the end that our particular experience wasn't by any means unique.

We have both been flying for more than ten years, we have had plenty of service drill on aircraft recognition, and in thousands of hours of flight time neither of us has ever seen anything even remotely resembling the strange and unforgettable objects we saw near Newport News on July 14.

Maybe there is some sort of confirmation in the fact that, following our sighting, the Washington radar twice picked up unidentified objects, on July 19 and 26, and that on the second occasion a pursuing jet flier reported being outdistanced by four disappearing lights.

What were the saucers we saw doing there? We have no idea. One of us

Pan American pilots Nash, Fortenberry.

thought that their sudden lighting up suggested that they may previously have been hovering. In any case, whether they saw us and came to investigate, or happened to move toward our position and took alarm, or rendezvoused there with the last two, or had some entirely different purpose, are about equally undeterminable guesses.

Though we don't know what they were, what they were doing or where they came from, we are certain in our minds that they were intelligently operated craft from somewhere other than this planet.

We are sure that no pilot, able to view them as we did, could conceive of any earthly aircraft capable of the speed, abrupt change of direction, and acceleration that we witnessed, or imagine any airplane metal that could withstand the heat that ought to have been created by friction in their passage through the dense atmosphere at 2,000 feet. Whether they were controlled from within or remotely, we can't say, but it is impossible to think of human flesh and bone surviving the jolt of their course reversal.

We have the usual reasons, too, for not believing that they were secret guided missiles. It is not logical that our own armed services would experiment with such devices over large cities and across airways, and another nation would not risk them here. Nor could anybody's science have reached such a stage of development without some of the intermediate steps having become public knowledge.

One thing we know: mankind has a lot of lessons to learn . . . from somebody.—**William B. Nash and William H. Fortenberry**